



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,299	11/21/2003	David Gutierrez	16443SSUS02U	3908
34645	7590	05/02/2007	EXAMINER	
JOHN C. GORECKI, ESQ.			TRAN, NGHI V	
P.O BOX 553			ART UNIT	PAPER NUMBER
CARLISLE, MA 01741			2151	
			MAIL DATE	DELIVERY MODE
			05/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/719,299	Applicant(s) GUTIERREZ ET AL.	
	Examiner Nghi V. Tran	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 and 5-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Knight et al., United States Patent Application Publication Number 2004/0199618 (hereinafter Knight).

4. With respect to claims 1 and 10, Knight teaches a method of transporting a parcel of data [i.e. remote data replication, see abstract and paragraphs 0007-0012] by an intermediate network element [i.e. a storage router **22** and/or **28**], the method comprising the steps of:

- engaging in a protocol exchange with at least one of a data source and a data target to schedule at least one of receipt of the data parcel from the data

source and transmission of the data parcel to the data target [paragraphs 0039-0047];

- receiving for forwarding the parcel of data by the intermediate network element having network element storage [figs.1-3];
- storing the parcel of data in the network element storage in coordination with at least one of said data source and data target [figs.4-7]; and
- forwarding the parcel of data [paragraphs 0007-0012 and see abstract].

5. With respect to claims 2 and 11, Knight further teaches wherein the parcel is larger than 1 Gigabyte of data [i.e. terabit per second, paragraph 0024].

6. With respect to claims 5-7 and 12, Knight further teaches wherein the step of engaging in a protocol exchange enables the network element to participate in control of the data transmission between the data source and data target [figs. 1, 3, and 6].

7. With respect to claims 8 and 14, Knight further teaches coordinating the transfer of the parcel of data between the data source and data target [paragraphs 0027].

8. With respect to claims 9, 13, and 15-17, Knight further teaches managing the transfer of the parcel of data between the data source and data target [paragraphs 0001, 0012, 0030, and 0039].

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight as applied to claims 1 above, and further in view of Kekre, United States Patent Application Publication Number 2005/0050115 (hereinafter Kekre).

11. With respect to claims 3-4, Knight does not explicitly show wherein the step of receiving for forwarding takes place by receiving the parcel from a first link with a first bandwidth, wherein the step of forwarding takes place by transmitting the parcel of data on a second link with a second bandwidth, and wherein the first bandwidth is greater than the second bandwidth.

In a replication method, Kekre suggests wherein the step of receiving for forwarding takes place by receiving the parcel from a first link with a first bandwidth, wherein the step of forwarding takes place by transmitting the parcel of data on a second link with a second bandwidth, and wherein the first bandwidth is greater than the second bandwidth [i.e. data may be replicated initially over a relatively shorter and higher bandwidth link, paragraph 0017 and see abstract].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Knight in view of Kekre by choosing greater than second bandwidth because this feature may be used to quickly and reliably replicate data to one or more secondary nodes [Kekre, paragraph 0017]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to reduce replication costs and write operation latency [Kekre, paragraph 0017].

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. "Data transfer method," by Murakami, United States Patent Application Publication Number 2004/0205145.
- b. "Method of designing storage system," by Keeton et al., United States Patent Application Publication Number 2005/0102547.
- c. "Data synchronization of multiple remote storage after remote copy suspension," by Watanabe, United States Patent Application Publication Number 2007/0061616.
- d. "Pooling and provisioning storage resources in a storage network," by Lolayekar et al., United States Patent Application Publication Number 2006/0075191.

Art Unit: 2151


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Thursday and every other Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi Tran
Patent Examiner
Art Unit 2151

April 24, 2007


KHANH DINH
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100